

---

***Project Memorandum***

**TO:** Angular Yuan  
I-Care Inc.

**FROM:** Jason Xi, PE, CFM

**DATE:** May 5, 2016

**SUBJECT:** I-Care Facility Stormwater Detention Improvements

**Scope of The Project**

Following stormwater improvement items are included in this project:

1. Reshape the detention basin in the vacant parcel east of I-Care facility.
2. Convert the current dry bottom detention pond to a wetland/native planting bottom detention pond.
3. Reconstruct the detention releasing control structure and associated storm sewers.
4. Landscape to create better buffer between I-Care and neighbor residential lot.
5. Native plants and bottom of detention to improve stormwater runoff qualities.

**Benefits of The Projects.**

The Village of Westmont Engineer Noriel Noriega, PE CPESC, has pointed out that the existing I-Care detention basin has long standing water issue. This indicates that the existing I-Care detention basin is not efficient to perform flooding control function. In addition, it could also raise some health concerns such as mosquitoes. This issue has to be resolved. As such, the I-Care has decided to conduct a stormwater management improvement project. The modified detention basin will provide following benefits:

1. It will provide adequate detention volume to serve both I-Care and the vacant parcel during heavy storm events (up to 100-year storm event).
2. According to the Village, the I-Care and vicinity residential area has flooding issues; the redesigned detention basin will help to relief the flooding issues.
3. The new runoff discharging control structure will insure the controlled stormwater runoff releasing rate from I-Care site up to a 100-year storm event.
4. The improved stormwater management system will also resolve the current detention long standing water issue.
5. According to the current DuPage County and Village stormwater management ordinance, the first inch of rainfall runoff from pavement typically contains concentrated containments, such as

2016

sediments, metal and oil etc, which could pollute downstream nature water body that accepts the runoff. Therefore, the DuPage County and Village Stormwater Management ordinance requires the treatment of the first inch storm runoff from impervious surface. The ordinance also requests to enhance the runoff infiltration. Since I-Care storm water detention was built long time ago when these requirements did not exist, the existing detention pond is not capable to treat the stormwater runoff and meets above requirements. Due to the grandfather in status, under current ordinance, above water quality requirements are not necessarily enforced to I-Care stormwater detention facility at this time. However, since the pond has been redesigned for flooding issues. The newly designed stormwater detention pond will also include a wetland/native plants bottom, the first inch storm runoff from impervious area will be retained and treated. This will improve the runoff water quality discharging from I-Care facility and bring I-Care's stormwater detention system up to date.

Please let me know if you have any questions about above summary.